

Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

June 25, 2007

Mr. Femi Akindele Remedial Project Manager Kentucky/Tennessee Section U.S. Environmental Protection Agency Region IV 61 Forsyth Street Atlanta, GA 30303

Re: Result of Air Quality Monitoring - FY 07, Fourth Quarter (FY07-4Q), Lees Lane Superfund Site, Jefferson County, Kentucky, Administrative Order on Consent, USEPA Docket No-91-32-C

Dear Mr. Akindele:

In accordance with paragraph 11, under <u>Reporting Requirements</u>, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan For Post-Removal Site Control at the Lee's Lane Landfill Site. Section 4.2, <u>Air Quality Monitoring</u>, attached for your information and files is one photocopy each of the following items, prepared by URS Corporation, 1600 Perimeter Park Drive, Suite 100, Morrisville, North Carolina 27560 and received by MSD on December 1, 2006.

- 1. URS Corporation letters dated June 20, 2007, 2 pages.
- 2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1page.
- 3. Table 1, TO-15 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: April 27, 2007, 1 page.
- 4. Table 2, On-Site Meteorological Data, Sampling date, April 27, 2007, 1 page.
- 5. Table 3, TO-15 Data Summary for Gas Monitoring Well Samples at the Lees' Lane Landfill, Sampling date April 27, 2007, 1 page.





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Please advise if you have any questions concerning the attached information.

Sincerely,

Richard H. Watkins, S Infrastructure Liaison

RHW/rw Lees-07-4Qtr

Enc.

Kentucky National Resource Environment Protection Cabinet
 Mr. Ken C. Logsdon, Division of Waste Management
 H. J. Schardein, Executive Director
 Michael Griffith

Michael Griffith Lees Lane File



URS Corporation 1600 Perimeter Park Drive Morrisville, North Carolina 27560 Telephone: 919.461.1100

Fax: 919.461.1415

31825450.00002

June 20, 2007

Mr. Rick Watkins Louisville Metropolitan Sewer District 3050 Commerce Center Place Louisville, KY 40211

Dear Rick:

Enclosed is the summary analytical report for the ambient air and gas monitoring well samples collected at the Lee's Lane Landfill site on April 27, 2007(Quarter 41). All six ambient samples, along with all six (G1, G2, G3, G4, G5R, G5L) well samples and a Field Blank were taken on April 27, 2007.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary of the ambient samples with the primary analytes required for submission to EPA. Ambient air samples indicate low levels of methylene chloride and vinyl chloride at a similar level compared to the last reporting quarter. Methane, acetylene, benzene, chloromethane, propylene and toluene were lower at each location, versus last fall's sampling. Carbon tetrachloride was about the same level at locations R2 and R3 (0.117 & 0.125 ppb) versus (0.100 & 0.102 ppb) versus the Fall 2006 samples.

The sampling locations were chosen based on a combination of prevailing on-site meteorology and accessible sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were moderate (53-58°F) with wind speeds ranging from 7.0 mph to 12.0 mph during the sampling day. The information displayed in Table 2 was obtained from the Louisville International Airport (Standiford Field) National Weather Service Station. The ambient air samples were collected in Summa canisters positioned 3-5 feet above ground level, integrated over an approximate 8.0-hour collection period.

The methane analysis was performed by GC/FID using a separate analytical system from the TO-15 analysis employed at STL in Austin. The TO-15 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total non-methane hydrocarbons prior to field deployment. All of the samples were successfully collected and analyzed for methane and the TO-15 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal URS and project-required specifications.



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The reliability of this data set can be characterized as good, based on the repeatability (analytical precision), surrogate spike recoveries, blank levels and the relatively few number of unresolved interfering peaks in the sample chromatograms. The April 27, 2007 field blank canister reported no positive hits other than a methane reading of 1.67 ppmV. The reported results have not been blank corrected in attached tables per our standard project procedure.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were screened with a GA-90 analyzer to test for the presence of methane prior to field sample collection. Methane was detected with the instrument at one well. Well G-1, had a reading of 6.0% methane for the left well and 18.2% methane for the right well. Both readings were taken at the initial opening of the sampling port. These values are consistent with the previous monthly measurements. There was no elevated measurement of methane in the ambient air in the vicinity of any of the gas wells including Well G-1. Gas well G-1 contained concentrations of analytes higher than those concentrations measured in the other wells, but consistent with those values measured in September 2006 at Well G-1.

The TO-15 analytical results from gas wells G-2, G-3, G-4, G-5R, and G-5L were consistent with those measurements reported from the previous sampling event (Fall 2006) from the same wells. Well G-4 was elevated for the following compounds (as compared to the other gas wells sampled): 1,1,1-Trichloroethane (81.2 ppbv), Carbon tetrachloride (1380 ppbv), Chloroform (41.3 ppbv), Dichlorodifluoromethane (41.5 ppbv), and Tetrachloroethene (30.9 ppbv). These levels are consistent with those measured at Well G-4 in previous sampling event (Fall 2006).

URS appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,

Robert F. Jongleux Project Manager

Enclosure

cc:

Michael Kajder, URS/LOU Project File/Task 41

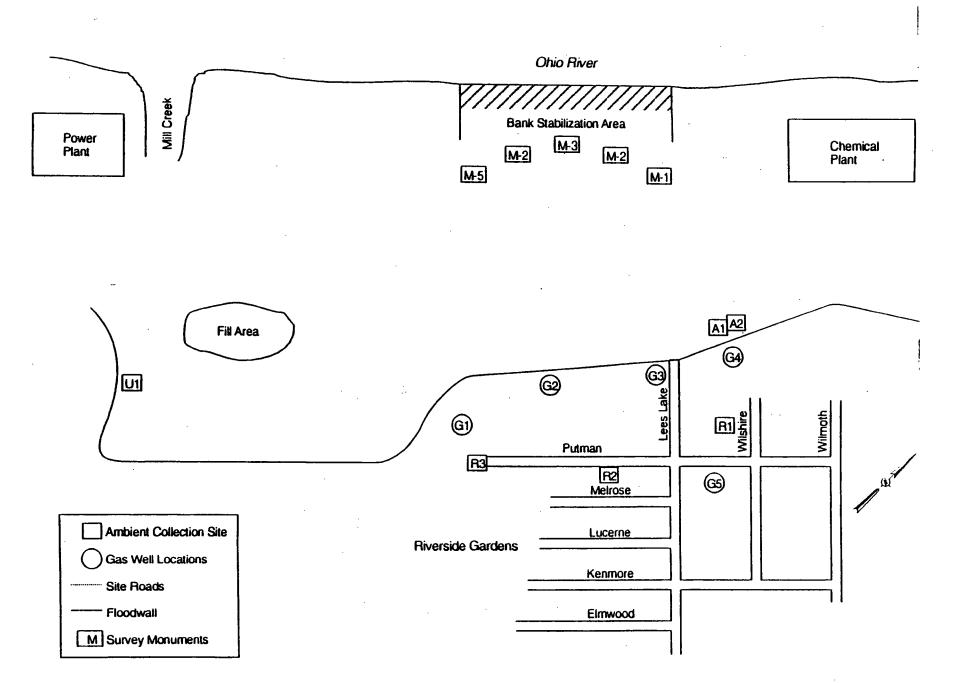


Figure 1. Lees Lane Landfill Sampling Locations

TABLE 1
TO-15 DATA SUMMARY FOR AMBIENT
AIR SAMPLES AT THE LEE'S LANE LANDFILL
SAMPLING DATE: 27 April 2007

	Ambient Air Samples								
Sample ID	U1	A1	A2	R1	R2	R3			
Canister ID	RA2031	RA2034	RA2025	HL0941	HL2093	RA2104			
Dilution Factor	2.7384	2.7018	3.0858	3.1365	3.1872	3.1038			
Location	LG&E	ONSITE	ONSITE DUP.	4423 WILSHIRE	PUTNAM LANE	PUTNAM END			
Veriflow ID	RA2031	RA2034	RA2025	HL0941	RA2035	RA2104			
Compound (ppbV)	- 			·		·			
Benzene	0.111	0.100	0.134	0.117	0.125	0.109			
Methylene chloride	0.154	0.048	0.061	0.041	0.071	0.048			
Toluene	0.180	0.094	0.149	0.199	0.268	0.131			
Vinyl chloride	ND	ND	ND	ND	ND	ND			
Xylene (Total)	ND	ND	0.024	0.019	0.048	ND			
Methane (ppmV)	4.71	5.47	6.21	4.84	4.80	4.58			

ND = Non Detect

TABLE 2
LOCAL METEOROLOGICAL DATA
AMBIENT AIR SAMPLES
SAMPLING DATE: 27 April 2007

Time	Barometric Pressure (in Hg)	Temperature (°F)	Dewpoint (°F)	Wind Direction (from)	Wind Speed (mph)	Observation
8:00 AM	29.85	55_	46	w	12	CLOUDY
9:00 AM	29.87	55_	46	w	10	CLOUDY
10:00 AM	29.9	53	46	w	9	CLOUDY
11:00 AM	29.9	55	46	w	9	CLOUDY
12:00 PM	29.92	55	46	w	12	CLOUDY
1:00 PM	29.93	56	47	w	10	CLOUDY
2:00 PM	29.93	56	46	w	9	CLOUDY
3:00 PM	29.94	55	46	w	12 _	CLOUDY
4:00 PM	29.94	_58	47	w	7	CLOUDY
5:00 PM	29.95	57	46	W	9	CLOUDY
6:00 PM	29.95	58	45	sw	8	CLOUDY

Source: National Weather Service, Louisville, Ky.

TABLE 3 TO-15 DATA SUMMARY FOR GAS MONITORING WELL SAMPLES AT THE LEE'S LANE LANDFILL **SAMPLING DATE: 27 APRIL 2007**

	Well Samples						
Sample ID	G1	G2	G3	G4	G5-L	G5-R	#1
Canister ID	RA2029	RA2088	RA2028	RA2073	RA2067	RA2071	RA0898
Dilution Factor	2.6782	2.6807	2.7067	2.629	2.6436	2.5952	2.6667
Orifice	RA2029	RA2036	RA2028	RA2073	RA2067	RA2071	NA
Sampling Date	4/27/2007	4/27/2007	4/27/2007	4/27/2007	4/27/2007	4/27/2007	4/27/2007
Compound (ppbV)							
Benzene	33.1	ND	0.126	ND	0.122	ND	ND
Methylene chloride	0.055	ND	0.037	ND	0.054	ND	ND
Toluene	0.157	0.140	0.525	0.035	0.538	0.084	ND
Vinyl chloride	12.5	ND	ND	ND	ND	ND	ND
Xylene (Total)	0.377	ND	0.038	ND	0.024	ND	ND
Methane (ppmV)	86,900	52.10	6.85	1.54	5.30	3.77	1.67

ND = Non-Detect * = Dilution Factor for G1 Methane = 178.7566